#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000551 Address: 333 Burma Road **Date Inspected:** 28-Sep-2007

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Xu Bing **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Mock Up

**Summary of Items Observed:** 

Elevation 114:

The QA Inspector observed a ZPMC helper blending repaired areas made to Weld Joint (WJ) number 8 and WJ number 11 attaching longitudinal stiffeners piece marks MP1012-2 and MP1012-3 to Lower Skin Plate Sub-Assembly (SA) MUSC-MA111.

The QA Inspector observed a ZPMC helper blending tack welds attaching longitudinal stiffeners piece marks p264, p268-1, p268-2 and p268-3 to Interior Splice Assembly MUC-A68.

The QA Inspector observed a ZPMC helper removing run off tabs from the ends of the welds attaching longitudinal stiffeners piece marks MP1010 and MP1013 to Upper Skin Plate E of SA MUSC-MA109.

The QA Inspector observed ZPMC qualified welders Gou Dengyun and Li Dong utilizing the Shielded Metal Arc Welding (SMAW) process, to attach lifting lugs to Interior Splice Assembly MUC-A67. Mr. Guo and Mr. Li were utilizing ZPMC weld procedure specification WPS-B-P-2112 with 4 millimeter diameter welding rod. The QA Inspector observed ZPMC CWI Xu Bing monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 170 amps for Mr. Guo and 166 amps for Mr.Li. Weld parameters appeared to comply with the above approved ZPMC WPS. The following photograph provides additional detail.

The QA Inspector observed ZPMC machine operating personnel machining the bevel faces of Interior Splice

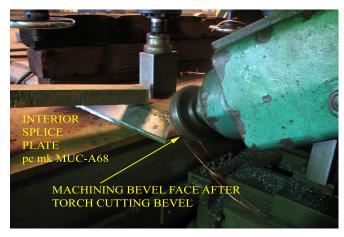
## WELDING INSPECTION REPORT

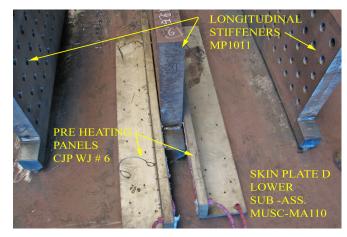
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Assembly MUC-A68 after the torch cutting of the bevels. The following photograph provides additional detail.

The QA Inspector observed heating panels placed on each side of Complete Joint Penetration WJ number 6 for pre heat prior to placing the weld in WJ number 6. WJ number 6 attaches longitudinal stiffener piece mark Mp1011-2 to Lower Skin Plate D of SA MUSC-MA110. The following photograph provides additional detail.

The QA Inspector observed heating panels placed on several areas that had been excavated in order to perform weld repairs to welds attaching longitudinal stiffeners to Lower Skin Plate A of SA MUSC-MA107.







#### **Summary of Conversations:**

There were no relevant conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Franco, Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer